

What is Computer Ergonomics?







What I Hear.....

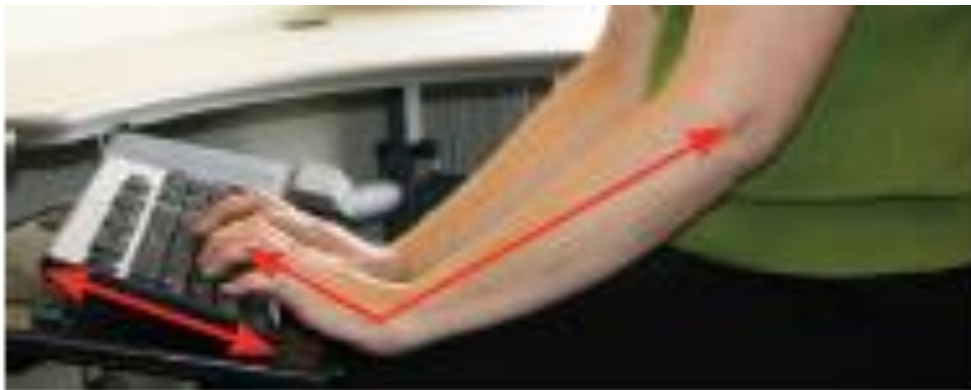
- “I need a new chair”
- “I did not know my chair could do that”
- “I can’t stand those keyboard trays”
- “Nobody ever showed me how to do that”
- “I didn’t know we had that equipment”
- “That’s how it was when I got here”
- “What a difference”

Risk Factors

- Repetition
- Awkward postures
- Excessive reaching
- Contact stressors
- Stationary/Static postures
 - Whether sitting OR standing

Awkward Postures

- Places biomechanical stress on joints and surrounding tissues.
- Any fixed or constrained body posture which is out of neutral.
- Awkward postures increase force requirements and the risk of developing a CTD.



Stationary/Static Postures

- Avoid sitting or standing for long periods of time.
- Break up the task. Especially if performing continuous data entry (i.e. special project)
- No matter how comfortable one is in an office chair, prolonged **static posture** is not good for the back and is a common contributor to back problems and muscle strain. To avoid keeping the back in one position for a long period, remember to stand, stretch and walk for at least a minute or two every half hour.

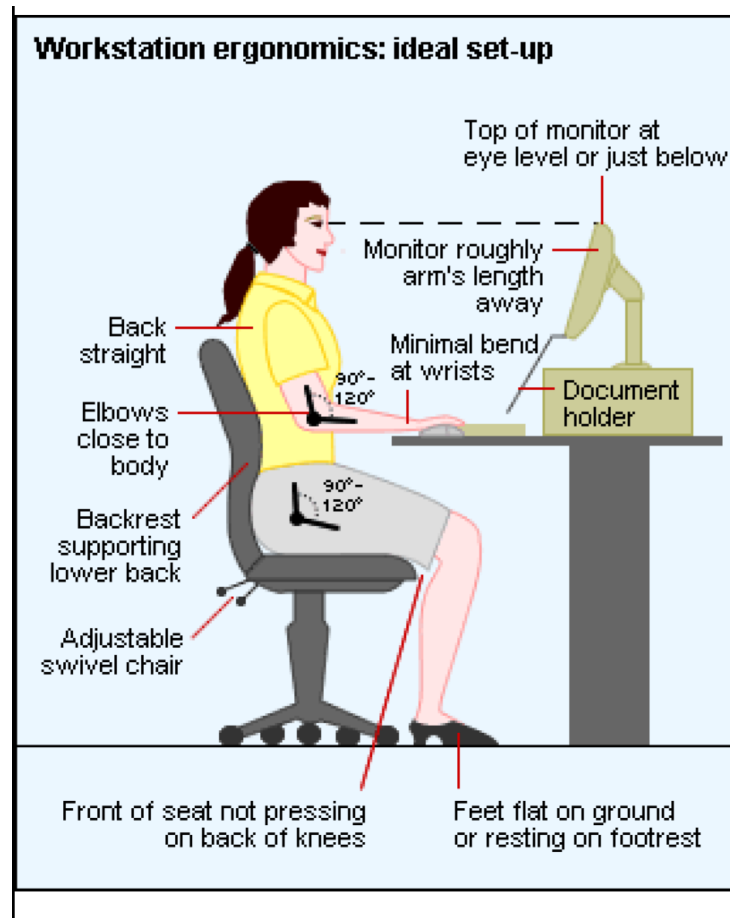
BLOOD CIRCULATION

STATIC POSTURE

DYNAMIC POSTURE



Proper Workstation Set Up is Key



Ergonomics Challenge



Conducting an Evaluation

- Listen to the employee.
- Observe.
- Review handout (discuss key postures/positions).
- Start with adjustments (chair first).

Chair

- Preferably adjustable (one size does not fit all).
- Ensure lower back is supported.
- Ensure seat pan is proper size.
- Ensure feet flat on floor or foot rest.
- Maintain proper posture.
- Take advantage of adjustability!
 - On evaluations I often hear people say, “I did not know my chair could do that”.









Keyboard and Mouse

- Flatten keyboard to promote neutral wrists
- Keep mouse close to keyboard



Correct
Hand, wrist,
and forearm
are in a
straight line

Keyboard and Mouse



Adjustable Trays



Mouse Location



Monitor

- Top of monitor should be at eye level or slightly lower.
- Screen should be a minimum of 20 inches away from operator.
- Avoid glare.

Proper Alignment



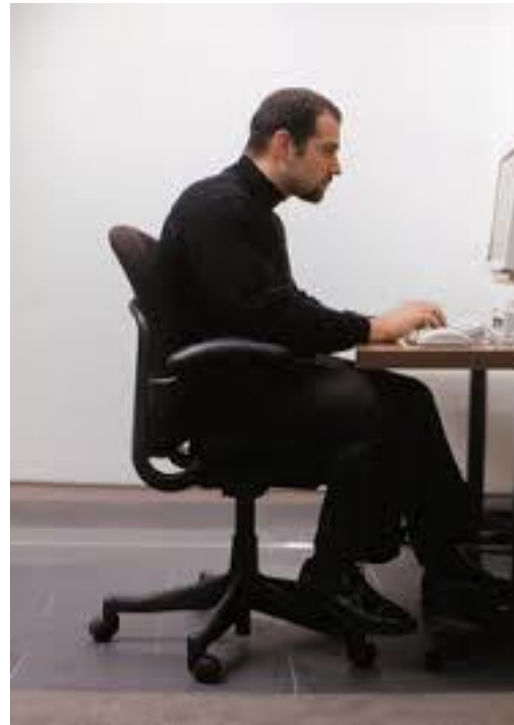
Height-Adjustable Monitor



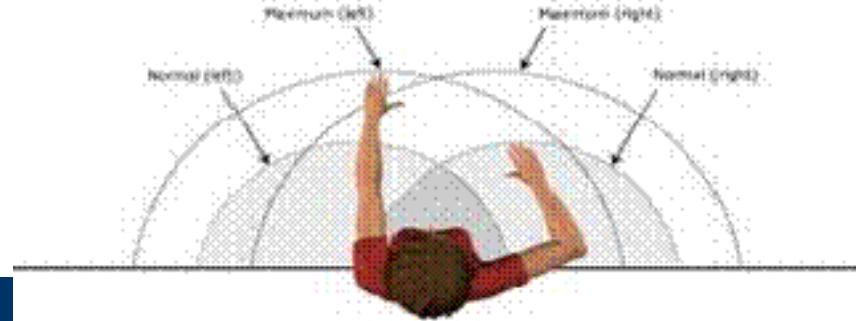
OR



Improper Monitor Height Poor Posture



Layout Issues



- Position “most used” items within easy reach in front of you with-in 14” - 18”
- Lesser used items place outside 18”
- In most cases, align your keyboard and monitor in front of your seated position
- Create a workflow across your workstation
- Avoid over-head reaches for heavy items

Avoid Repetitive Reaching



Case Study (actual visit)





Summary

- Small changes can have positive impact.
- Workstation changes may take time to adapt to.
- Try different postures.
- Job Modification Reimbursement (handout)

Resources

- On-site ergonomic evaluations
 - Loss Control Consultant
 - Cross TPA
- <https://www.osha.gov/SLTC/etools/computerworkstations/index.html>
- <http://sunspot.nh.gov/riskManagement/OfficeErgonomics.aspx>